

Echeverria. (M.G.)
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BY M. G. ECHEVERRIA, M. D.

[Read before the Association of Medical Superintendents of American Institutions for the Insane, Baltimore, Md., May 28, 1873, and published in the *American Journal of Insanity*, for July, 1873.]



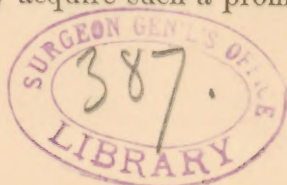
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The questions relating to the history of epilepsy are fraught with interest to us all. For myself, I acknowledge that they have always offered a special attraction; and I propose to embrace in this rapid sketch, the characteristic traits of one of the most perplexing among the multiple phases of the convulsive neurosis. Let me remark, at this point, that I shall be obliged to embody here some of the assertions I have recently advanced in the *AMERICAN JOURNAL OF INSANITY*, on account of their interest, and as the establishment of the facts referred to, is essential to the conclusions I may draw on the clinical and legal aspects of Epileptic Insanity.

The paroxysmal recurrence of epilepsy constitutes one of its chief pathognomonic features, and the main elements of the existence of the disease are: unconsciousness, muscular convulsions, and mental disturbance. The concatenation of these three fundamental phenomena does not appear with invariable distinctness, in as much as one or more of them may acquire such a prom-



inence as to impart a specific character to the epileptic paroxysm. None of these isolated symptoms could, however, suffice by itself to prove epilepsy, any more than one single mad act could prove insanity. Nevertheless, in every case unconsciousness displays itself conspicuously, assuming, in some instances, such an absolute prominence as to constitute almost the whole epileptic fit,—on which account I regard unconsciousness as the principal exponent of the epileptic malady, often making its detection difficult, and rendering its recognition questionable.

It is not my purpose to discuss the psychological state which is generally coupled with the ordinary epileptic attacks, but to confine my remarks mainly to the unsoundness of mind that may originate from the convulsive neurosis, and which differs materially from the other paroxysmal exhibitions of epilepsy. I designate the intellectual trouble in question by the name of *Epileptic Insanity*, first suggested in this particular sense, as I believe, by Morel, and thereafter employed in a similar way by Falret, Delasiauve, and other alienists.

Epileptic Insanity holds a separate place in almost every one of the rational and practical classifications of insanity, put forward by the leading authors of our day, on *Psychological Medicine*; consequently, it is in vain to dwell upon the reasons for such an universally accepted distinction. Whatever might be the principles or views selected as foundations for each of the classifications, it is obvious that epileptic insanity has appeared to their respective authors, as distinctive, as for example, general paresis, and hence the separate division they have assigned to it. Notwithstanding this common and implicit agreement to admit the individuality of epileptic insanity, it is indeed striking to see the con-

flict of opinions and the doubts, which have been expressed by several alienists, when it has become necessary to decide upon its existence, and to trace satisfactorily its origin to the epileptic malady. We usually seek for the explanation of unknown phenomena in speculative reasoning, in accordance with the doctrines we profess; the conflict of opinions and the doubts just noticed proceed from no other source, for they could not arise from any practical consideration and study of well authenticated and carefully recorded cases of epilepsy. There is scarcely one chapter in the history of epilepsy free from speculations and routine principles, and the one under consideration exhibits no departure from this practice, so opposite to true scientific progress in the treatment and management of epileptics. Furthermore, epileptics are not only outcasts from society, but also from almost every medical institution; and these facts prevent the dissemination of sound views on any of the unsettled questions regarding their dreadful disease.

I can but feel that I should acknowledge how much I am indebted for valuable aid in my researches, to the writings of Delasiauve, Morel, Falret, Baillarger, Trousseau, Boileau de Castelnau, Legrand du Saulle and other French alienists, who have contributed so efficiently to elucidate the study of epilepsy, in its relations to medical jurisprudence. However, the conclusions which I would present for the consideration of the Association, are the result of my personal experience for a period of over thirteen years, with more than 700 epileptics, whose histories I have clinically analyzed and carefully recorded in 532 cases, of which 267 were of manifest epileptic insanity. Having made these preliminary remarks, let me pass to examine the principal points of the question we have to consider, namely: The Etiological Elements of Epileptic Insanity, its

Relations to the Ordinary Fits, Characteristic Features, and Medico-Legal Aspects.

It is asserted by almost every standard authority on insanity, that epilepsy leads to mental unsoundness. Esquirol never saw insanity superinduce epilepsy, but Musset, Boileau de Castelnau and other writers, declare in less absolute terms, that the fact is of rare occurrence. My observation fully concurs with that of Esquirol. The statistics of 532 epileptics and the histories of the numerous lunatics who have come under my care, distinctly prove, that in every instance, insanity was preceded by a more or less prolonged recurrence of some kind of fits. I have of course frequently met with epileptiform convulsions as the epiphenomena of general paresis, melancholia, dementia and acute mania; yet, I repeat it, that in no instance have I recognized the epileptic disease as following insanity. These results are strengthened considerably by the experience of one of our most competent colleagues, Dr. John P. Gray, with some eight thousand lunatics, among whom he has observed epileptiform convulsions under similar circumstances, to those I have just mentioned, and also attacks of mania, or melancholia, superseding the epileptic fits for a more or less prolonged period, and which were mistaken, in their true nature, until the antecedent history of the individual became known. We may, therefore, conclude as previously asserted, that epilepsy leads to insanity, the contrary proposition resting on no positive experience.

The 267 cases of epileptic insanity, comprised 141 males and 126 females. The predisposing or determining causes of the disease, were unknown in 18 males and 22 females, thus leaving 123 males and 104 females whose original source of the disorder could be distinctly ascertained. Insanity, paralysis, or epilepsy,

was noticed among the ancestors of 37 males and 46 females; epilepsy or paralysis was observed in the brothers or cousins of others, but among the ancestors of 23 males and 16 females, no form of neurosis existed. Intemperance in the parents, was observed in 29 males and 21 females: lastly, the consanguineous intermarriage of the parents is recorded in two cases among males, and one among females. The hereditary predisposition originated from the maternal side in 18 of the 37 males, and in 25 of the 46 females; from the paternal side in 10 males and 15 females; and in the remaining cases, 9 males and 6 females, the families of both parents were tainted with a nervous diathesis. Phthisis was noted among the ancestors of the 37 males, in 11 cases, and in 13 of the 46 females; consumptive brothers were counted seven times among the males stained with the hereditary predisposition, and nine times among the females. I have referred to phthisis because it is a common sequel or accompaniment of epilepsy, and, without holding any extreme views on the subject, I am led to believe from my experience, corresponding with that of Vanderkolk and other authors, that insanity may appear transformed, from one to another generation, into epilepsy or phthisis, or *vice-versa*. The etiology of criminal psychosis strengthens this assertion in reference to the transmission of an insane temperament by phthisis. Maudsley says:

“In addition to entire absence, or perversion of moral sense, without feelings of remorse, which experience of habitual criminals brings prominently out, other important facts which we learn from an investigation of their family histories are, that a considerable proportion of them are weak-minded or epileptic, or become insane, or that they spring from families in which insanity, epilepsy or some other neurosis exists; and that the diseases from which they suffer, and of which they die, are chiefly tubercular diseases and

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diseases of the nervous system. Crime is not, then, always a simple affair of yielding to an evil impulse or a vicious passion, which might be checked were ordinary control exercised; it is clearly sometimes the result of a neurosis which has close relations of nature and descent to other neuroses, especially the epileptic and the insane neuroses; and this neurosis is the physical result of physiological law of production and evolution."*

I have quoted this passage at such a length, on account of its general bearings on the subject we discuss.

The known determining causes were distributed among the 86 males and the 58 females, as follows:

Mental disturbance, 9 males, 6 females.
 Fatigue and overwork, 5 males.
 Grief, 3 males, 6 females.
 Fright, 2 males, 5 females.
 Insolation, 4 males.
 Injuries to the head, 23 males, 11 females.
 Intemperance, 29 males, 12 females.
 Childbirth, 1.
 Pregnancy, 1.
 Excessive punishment, 1 male.
 Uterine trouble, 14.
 Syphilis, 5 males, 1 female.
 Fever, 1 male.
 Scarlatina, 1 male.
 Anger, 1 male.

The enumeration I have made of the predisposing and determining causes shows, that those which seem the most prominent in bringing about epileptic insanity are: an active hereditary predisposition, intemperance, and injuries to the head. The agency of hereditary predisposition operates with most potency during adolescence, namely, from 14 to 25 years, but the two other prominent accidental causes are mainly referrible in their supervention, to adult and old age. It is a well established fact that hereditary epilepsy commonly displays itself during infancy, although the baneful effects of the

* *The Journal of Mental Science*, Oct., 1872, p. 408, No. LXXXIII.

spasmodic neurosis may often remain latent throughout this period, to break out in later childhood or adolescence. Another point not to be forgotten is, that when the onset of epilepsy dates from childhood, the decay of the intellectual faculties does not usually progress rapidly, insanity not becoming thereby fully developed until puberty; but excessive irritability, or irregularities in the intellectual and moral conditions of the individual, with deficient memory, render themselves conspicuous throughout this period, though not actually constituting a state of insanity. These are, indeed, the most helpless cases, for they usually depend on some congenital malorganization and admit of no cure, though a favorable modification of the mental trouble with a comparatively great relief of the epileptic paroxysms, may be afforded by persevering and judicious treatment. I thus cursorily allude to this fact on account of the wide-spread popular belief, unfortunately entertained by some physicians, that epileptic children should be left to the care of nature, as the recuperative powers and the change of puberty will achieve their cure, an erroneous expectation which I never have seen fulfilled. No principle has received a greater sanction from experience, than that the earlier the age at which epilepsy springs up, the deeper it undermines the organic and moral constitution, and the more disastrous are its results.

Turning to epileptic insanity, I must add, that in the cases of congenital epilepsy under my observation, embracing those where the fits broke out immediately or within a short period after birth, idiocy has also been originated by some disorder of the nervous system, either innate or developed in early infancy, before there existed any manifestation of cerebral activity. Under these circumstances, some local paralysis, or deformity,

or distortion of the limbs has attended the epilepsy, and such individuals were, correctly speaking, idiotic-epileptics. The shape of their skulls, which on several occasions I have obtained with the *conformateur*, used by hatters, has always been very unsymmetrical, with proportions generally ranging below the smallest normal standard. Unnaturally large heads with prominent eyes, have been noticed mainly among those whose early history exhibited the existence of hydrocephalus, or who were deeply tainted with rachitis or a scrofulous diathesis, and among whom, deformities and distortions of the body or limbs, and defective development of the teeth, were most striking.

The high proportion of cases ascribed to intemperance is, in a great measure, due to the numerous patients proceeding from the lower classes and dregs of the city, received at the hospital. On this account, I am inclined to think that in several of these instances intemperance, instead of operating alone, has helped efficiently some other unrecognized agency, productive of epilepsy. I am satisfied, however, that whether inducing the disease without the intervention of other causes, or whether associated with any of them, intemperance ranks as one of the most pernicious influences in the production of epileptic insanity.

Injuries to the head prove to be a very prolific cause of epilepsy, with its concomitant moral and intellectual changes; therefore it is not surprising that epileptic insanity should be frequently the outgrowth of a cause, which acts no less powerfully in originating insanity, independent of epilepsy. The influence of intemperance and injury to the head are very often combined, and their dreadful effects may be heightened, by the addition of hereditary predisposition, as I had occasion to observe in a carriage driver, the offspring of an insane

grandfather and a phthisical mother, who became affected with epileptic vertigo and mania, after severe contusion of the head, by being thrown from a carriage. This patient was also very intemperate, and in his fits of mania would become extremely dangerous. More impressive yet is the case of a woman with epileptic mania, accompanied by the most uncontrollable homicidal impulses, who became epileptic immediately after her first confinement, and whose father, an epileptic and inveterate drunkard, murdered his wife and two children, during one of his fits, for which crime he was condemned to imprisonment for life in Ohio.

Without exaggerating the medico-legal value that may attach to the foregoing etiological conditions, I have deemed it proper to point out the essential part they may have in the causation of epileptic insanity, a question which may present itself for us, as medical experts, to determine. Before leaving this subject of etiology, I must notice the statement advanced by Reynolds, that hereditary taint is not essential to the production of mental failure, in epilepsy. The conclusion is arrived at upon the analysis of 34 cases, and as Reynolds himself acknowledges, "the numbers represented in the above table are too small to establish any doctrine with regard to the degrees of mental failure and their relation to hereditary taint; but they are amply sufficient to prove that there is no necessary dependence of the one upon the other."* My statistics contradict the conclusions just quoted from the distinguished English author. Out of 135 patients, in which the hereditary taint was known and confessed, 83 displayed insanity, and the 52 remaining, some peculiarity in their character, or a manifest weakness of mind, with defective memory; consequently it is very consistent with reason to believe that there must be a dependence between hereditary taint

*Epilepsy; its Symptoms, Treatment, &c. London, 1861, p. 163.

and mental failure, although the presence of the latter does not necessarily involve the existence of the former, which is not an absolutely essential condition of mental failure, since it may arise from any other etiological element. I may say lastly, that Reynolds' conclusions on this important point are also disproved by the experience of every alienist who has made a special study of epilepsy.

The relations of insanity to the epileptic fit, is a subject which has been investigated by Esquirol, Calmeil, Delasiauve, Morel, Cavalier and others. Falret has endeavored to reconcile the views held by the three last named alienists, with those at which he has himself arrived, and asserts, that: "delirium chiefly occurs as a consequence of epileptic attacks recurring at short intervals, after a prolonged suspension of the disease."* This is very true, but there are two other prominent conditions, overlooked by Falret, in which insanity frequently occurs without any distinct relation to the length of intervals between the attacks, namely: after nocturnal fits, and after seizures of *petit mal*. The latter are themselves more pernicious to the intellectual faculties, than any other attacks. Were I to express my views on this important question, I should feel inclined to assert, that the most violent convulsive forms are surely less apt to occur with concomitant insanity, whereas, on the contrary, the vertiginous or hardly noticeable fits of *petit mal* frequently occur along with more or less intellectual derangement. At the same time the association of *petit mal* and *grand mal*, renders the supervention of insanity, relatively more common.

It would be erroneous to suppose that insanity sets in regularly after the fit. Disregarding for the present those instances of larvated or masked epilepsy where there is no visible fit, there are again other cases in

* *Etat Mental des Epileptiques*. Paris, 1861, p. 62.

which the fit is preceded, not by an intellectual aura, but by a more or less prolonged mania, frequently of the most furious character, as has been particularly noticed by Delasiauve, Cavalier, Falret and others, and as I have myself observed on many occasions. I have also met with insanity originating after the very first epileptic seizure, and recurring regularly thereafter. This has occurred principally among adults, and under such circumstances, a traumatic injury to the head, intemperance, or syphilis have been the ordinary causes of the disease. The phenomenon has also attended epileptic attacks, followed by temporary paralysis. The association of epilepsy and paralysis evidently superinduces mental impairment, for I have never failed to detect throughout the progress of such cases, a gradual, though obvious decay of the intellectual faculties, and a state of permanent dementia after the maniacal exacerbations accompanying the fits. I have recorded the fact particularly in 248 cases, but 123 of them are excluded from the 532 serving as the basis of the statistical results herein presented, because epileptiform convulsions and paralysis were displayed from the very inception of the disease, and therefore I did not regard them as examples of genuine epilepsy. It is worthy of remark, that my observations in this respect agree with those of Sir Henry Holland,* extending over a practice of forty years, and as expressed in his opinion upon the mental competency of Mr. Parish.

Epileptic insanity, as I have studied it, may display itself like all other varieties of insanity, in an intermittent, a remittent, and a continuous form. The intermittent form is characterized by periodical attacks, breaking out with intervals of variable regularity. In the remittent form, there is no complete recovery of

*Opinions upon the Mental Competency of Mr. Parish: New York, 1857. p. 570.

intellectual soundness between the paroxysms or maniacal exacerbations; and lastly, in the continuous form, the mental trouble exhibits a permanent character, not essentially modified by the recurrence of the fits. In his valuable memoir on the mental state of epileptics, Falret* draws a distinction between the intellectual *grand mal* and the intellectual *petit mal*, indicating thereby a close relation between the psychical and the physical manifestations of the disease. The intellectual *grand mal* corresponds, according to the description I condense from Falret, with the incoherent and violent state commonly described as furious mania. The intellectual *petit mal* may continue, from several hours to several days, constituting an intermediate condition between the irregularities of character which attend the fits, and the highest disturbance of the furious maniacal seizures. This state is mainly disclosed by a great confusion of mind, accompanied with instinctive instantaneous impulses and acts of violence. No sooner has the stupor of the epileptic fit subsided, than the patient laboring under this particular kind of delirium, becomes sullen and deeply dejected, with great confusion of mind and irritability against everything surrounding him. The patient feels an utter inability to collect or fix his thoughts, and to master his will, which is variably displayed, according to the social position of the individual. Epileptics have no energy to overcome these feelings, and seized by a vague anxiety, or hallucination, or an involuntary dread, they leave their homes to wander about without purpose. In the midst of this confusion of mind they recall to their memory the painful past impressions, which spontaneously spring up in their imagination, always the same at every new access; and it is during this terrible condition that such epileptics give themselves up to acts of violence,

* Op. cit. pp. 16-25.

in the most instantaneous, sudden manner, thus committing homicide, suicide, arson, or any other criminal deed, and giving vent to their rage, blindly striking repeated blows at their victims, and fearfully mangling them. After the fit of violence a crisis may take place, the patient either returns to himself, in a sort of instantaneous manner, regaining his consciousness and rendering an imperfect account of his misdeed, or, on the contrary, he escapes, running away in a bewildered state of great agitation. In both cases the very confused recollection, if not the complete oblivion of what has happened, is almost always a striking essential symptom of this mental state, so much resembling the awakening from a dreadful dream. Such are the principal traits of the two conditions delineated by Falret, and which are actually exhibited by the epileptic insane. However, the ingenious distinction between the intellectual *grand mal* and the intellectual *petit mal*, and their respective relation to the corresponding physical conditions of epilepsy, involves, as Delasiauve has already remarked, a connection which is far from being constant. The most fearful fits of rage and frenzy I have witnessed, were superinduced after attacks of simple *petit mal*, and under similar circumstances, fits of furious mania have too repeatedly fallen under my observation, to regard the phenomenon as of exceptional occurrence. But we find also after successive fits of *grand mal*, or of *petit mal*, or of both together, a state of harmless insanity, with the highest degree of melancholia with stupidity, without the violent reactions which, as set forth by Falret, should in the intellectual *grand mal*, exclusively follow the physical *grand mal*. The same negative result not infrequently occurs again in connection with nocturnal paroxysms. In other instances, the epileptic,

without any dejection or stupidity, talks and acts coherently, in an apparently rational manner, but actually without any appreciation of his outward relations; and this change may supervene in connection with diurnal or nocturnal fits, or throughout the paroxysms of cerebral or larvated epilepsy. All these various manifestations, not corresponding to any of the two intellectual varieties proposed by Falret, necessarily shake the foundation of his absolute division. Let me cite some instances sustaining these statements.

A gentleman remains for one or two days after his nocturnal attacks, in an indifferent condition, kneeling in some corner of his bedroom, muttering unintelligible words, and completely irresponsive to any external incitation. These symptoms recur, always the same, with every attack, unless the stupidity be increased in intensity, by a close succession of fits, in which case it becomes impossible to make the patient eat or drink, or to change his position, and he then passes his urine and excrements in his clothing. After remaining two or three days in this sort of cataleptic state he awakes in the morning, very confused and without knowledge of what he has done.

Another man, with a hereditary predisposition derived from his maternal family, has nocturnal attacks every three weeks, preceded by several fits of *petit mal*. He displays, for nearly a week after the nocturnal fits, the most exalted ideas, believing himself a great man, persecuted by people, who want to rob him, and at the same time walks naked about his rooms, committing the most indecorous acts, and daubing himself with his own fæces, on which account he has to be restrained during these fits of insanity.

I presented to my clinic, in 1869, a girl who became epileptic a few days after having been bitten by a dog.

The fits recurred accompanied by tonic spasms of the arms, and were after a year followed, in the interparoxysmal period, by a silly state, alternating with an ecstatic condition, and total suspension of mental power and sensibility. This girl, after a series of fits, tore off, with a hair pin, the gum from the whole alveolar process on the left superior maxillary bone, and pulled out, one after the other, every tooth implanted in it, to wit: the two incisors, the canine, the bicuspid, and the first and second molars which were in a healthy condition. She silently and most deliberately inflicted on herself such fearful injury, without the slightest indication of pain, and would have persisted in tearing out the denuded bone if she had not been prevented by the camisole. None of these examples agree with any of the types presented by Falret, nor did they exhibit any excitement or furor during the clearly intermittent insanity, preceded by seizures of *grand mal*.

I look upon epileptic insanity as one of the manifestations, *per se*, of the spasmodic neurosis, recognizing its essential or primary source, not in the fits, but in the very etiological elements of the disease. The various fits are nothing else but paroxysmal manifestations, which may accompany each other in close sequence, or exist entirely by themselves, separate, though nevertheless depending upon one common etiology. We do not know why, under certain circumstances, we have to contend with fits of *petit mal*, in others with fits of *grand mal*, and in others again with nocturnal attacks; neither can we better explain why the counterpart of these convulsive paroxysms should be characterized by purely cerebral symptoms unattended by any spasmodic phenomena. Moreover, Falret truthfully and unequivocally asserts, that there is but one form of epileptic insanity, in which the delirium and convulsions are not

two distinct maladies, but two diverse manifestations of the same morbid state, which may exist separately or simultaneously, or within short intervals of each other. For all these reasons, instead of attempting to establish an immediate relation of cause to effect—which can not be proved—between the intellectual and the physical paroxysms, I have thought safer to adopt the division of epileptic insanity here proposed, and to consider unconsciousness and the excessive reflex susceptibility, the chief characteristics of epileptic insanity, capable of breaking out, either alone or coupled with any other form of the epileptic malady. In some instances of epileptic insanity, the profound stupidity or the state of pseudo-catalepsy in which the patient is sunk, prevents the reaction of the reflex susceptibility, which underlies the generation of impulsive acts; but I am yet to discover the case of epilepsy where the existence of unconsciousness is not plainly manifest. If we look, on the other hand, at fits where the mental disorder is reduced to a state of delirium, unconsciousness then becomes obvious in the stupor, which Delasiauve has so properly pointed out, as the characteristic accompaniment of epileptic delirium.

The intermittent form of epileptic insanity, generally accompanies the fits; it has often a subsequent occurrence, though it may not rarely herald them; and in other instances the fit breaks out as though it were an intercurrent phenomenon of epileptic insanity. I shall not speak of epileptic mania as it supervenes in clear connection with the fits. We are too familiar with it, and we know, that when directly setting in upon the fit of *grand mal*, the epileptic instantly passes from the clonic stage of the fit into the maniacal, without any intermediate period of sleep, or coma. Let me also notice distinctly, that epileptic mania very seldom lasts

less than two or three hours, and that I have never met with one instance of shorter duration. It also happens, that the maniacal attack, instead of following the fit, is developed one, two, or three days after, and is then usually more prolonged, whereas, in other instances, intermittent epileptic insanity may go on even to its most dreadful stages, without any fit being seen or suspected.

The larvated epilepsy of Morel, obviously corresponds to the intermittent epileptic insanity of my division. The description given by him, and the assertions he has recently made at the Medico-Psychological Society of Paris, on the subject of larvated epilepsy, would lead us to believe, that the occurrence of convulsive attacks always discloses the doubtful epileptic nature of the larvated attacks; or that, as he says: "These kinds of patients, after a more or less prolonged time, arrive at the convulsive attack and die." This is, perhaps, too absolute a statement, for although I have very often met with instances of larvated epilepsy ending in a series of convulsive fits, or *status epilepticus*, I have also seen several others where the nature of the periodical attacks of insanity, with their peculiar characteristics, was rendered unquestionable by the previous existence of other fits, and cases of intermittent epileptic insanity, or larvated epilepsy, which have reached their closing stage, without the supervention of any convulsive attacks, the patients having died from cerebral congestion, in a comatous condition.

The great danger from epileptics, originates from their morbid impulses, more than from their intellectual derangement. The abnormal increase of their reflex faculty makes them act without reflection, and it is from this source that all their misdeeds flow. They react in-

voluntarily to every physical or moral incitation. Their ideas are derived from feelings exaggerated by the hyperæsthetic condition, into which they are carried, and which must necessarily expose them to irresistible acts. These acts are, therefore, always sudden and instantaneous, for any ordinary feeling or impression perceived by a brain so deeply upset in its functional activity, is beyond the control of the will, and gives rise thereby to perverted ideas, automatically developed. Let me further state, that such instantaneous, impulsive acts, are quite distinct from the condition of transitory mania, during which they arise, and with which they should not be confounded. In this respect I agree with Morel, who has most emphatically declared, that there is no such thing as instantaneous insanity, but instantaneous evil acts, in relation to the effects of some kind of mental disease, displayed by the parents of the culprit. I go one step further, and without simply confining their source to heredity, I fasten such instantaneous acts to some unsuspected form of epilepsy, when, by tracing back the history of the individual, we discover indications of the epileptic disease in its hidden varieties, such as nocturnal fits or simple vertigo,—under which category I have seen some very interesting and perplexing cases.* These considerations place transitory mania on the only sound and evident grounds, on which it can be established, without lending ourselves to the prevalent misuse which has been made of it, to exculpate criminals. The fact is furthermore important, to account for the extreme susceptibility of epileptics, and their evil propensities, where insanity has not been fully developed. It is readily recognized that most of the reputed cases of *mania transitoria* prove to be, upon closer investigation, those of unsuspected epilepsy or epileptic insanity. It is also worthy of remark,

* See last April No. AMERICAN JOURNAL OF INSANITY, pp. 514, *et seq.*

that the greater the excitement and incoherence, the less liable will the epileptic maniac be, to commit an assault, or acts of violence, which are usually the offspring of the hallucinations, and perverted feelings underlying the apparently inoffensive and quieter looking forms of epileptic insanity.

It is, indeed, surprising that no special reference whatever, has been made by any author, to the state of unconsciousness, which constitutes one of the chief characteristics of epileptic insanity. And yet, it is easy to find the phenomenon noted in several of the cases reported by Esquirol, Delasiauve, Boileau de Castelnau, Trousseau, Morel, Falret, Legrand de Saulle, and others. The only distinct allusion in reference to this subject appears incidentally in Dr. Ray's classical work on Medical Jurisprudence, where it is stated that: "such loss of consciousness is not so far removed from the psychological impairment ordinarily attributed to epilepsy, as to render its occurrence highly impossible."* This guarded opinion is expressed after remarking that Fyler, Bethel, and Winnemore committed the homicide for which they were tried, in a state of unconsciousness not immediately connected with a fit. There was no evidence that such a condition had been previously observed in Fyler or Bethel, but, as Dr. Ray says, "Winnemore stated, that he once rowed about in a boat on the river several hours, without being conscious of the fact, having been told of it by those who saw him." The proofs of an attack of cerebral epilepsy could not appear more striking than in this brief report. I presented in the last number of the AMERICAN JOURNAL OF INSANITY, a series of cases, in which the state of unconsciousness was very remarkable, occurring after fits of *petit mal*, and nocturnal attacks, and without any relation to the outbreak of a fit. These exam-

* *Medical Jurisprudence of Insanity*. Fifth Edition; 1871: p. 486.

ples are of such cardinal importance, in sustaining the views here advanced, that I beg to be allowed to repeat a brief description of them, to which I will add some other cases.

A young man fell from the top of a ladder fifteen feet high, and became epileptic thereafter. He would, while in conversation, stop suddenly, drop his head and look as if dead, but would regain consciousness in a few seconds, entirely unaware of his condition. One evening, after one of these attacks, he went into the street, took a horse and buggy which he found in front of a house, rode over a mile and a half to his father's grave, pulled the flowers from the bushes planted over it, and brought them home to his mother, whom he invited to take a ride. Being asked where he procured the horse and buggy, he replied that he found them lost in the street. His mother directed him to go forthwith to a livery stable, and there leave the horse and wagon that they might be returned to their owner. He started to do so, but left the horse and buggy for keeping, at a livery stable, as his own. When discovered by the owner, the transaction was looked upon as a larceny, thereby causing great mortification and annoyance to his family. The boy, however, could never account for his conduct, and completely forgot every circumstance connected with it. On another, more recent occasion, he left home after the attack, and while wandering through New York, came across a shipping agent, who engaged him to go as a sailor on board an English vessel starting for London. The agreement was signed, and after leaving almost all his pay, and some of his personal effects, he embarked for England. The captain discovered from the start, that he was no sailor, and finding him very flighty, exempted him from going to the top of the masts, and assigned to him very light

duties. A few days after his departure, on coming out from this state of epileptic insanity, he expressed great surprise at finding himself on board a vessel bound for London, and completely ignorant how he came to be there. The mother discovered, through the police, the departure of her son, and took the necessary steps to have him brought back. He has similar attacks of insanity, after nocturnal paroxysms, or fits of *petit mal*, as described above, but is very rational and gentle in the periods intervening between the paroxysms, during which he is very mischievous, inclined to be constantly running or wandering about, and prone to acts of violence.

A young lady, aged 28, has suffered from severe *grand mal* and *petit mal*, from the age of dentition. Her mother and brother are insane. For the last five years the *grand mal* has occurred only at night, about the menstrual period, and at the same time the fits of *petit mal* have increased in severity. The intellectual faculties of this woman, impaired at this time, display at others, no change beyond the peculiarities and impulsive traits of character, obvious to those only who watch her closely. After the attacks of *petit mal*, she remains in a most curious state, and talks and argues with an acuteness and loquacity not before natural to her; she relates with great correctness passages from the Bible, or writes the most strange and incoherent letters. While in this condition, she is constantly acting as though she were listening to something, and frequently stops in the conversation, to assume such attitudes; she also becomes very destructive, often strikes at those who touch her, and does not seem to recognize or remember the names of persons familiar to her, though replying pointedly, and coherently to any of their remarks. This state persists for one or two days

before the nocturnal attack, after which she feels depressed, with no recollection whatever of what she has done before.

[A few days after this paper was read before the Association, I was requested to examine into the mental condition of a boy, aged eighteen, belonging to a respectable family, who had been arrested at three o'clock in the morning, and committed to the Tombs. It seems that, as he was wandering in an unconscious state through one of the city avenues at this late hour, a professional thief took hold of him, and a few moments after, robbed a passer by of his silver watch and pocket book, which he handed to the boy, telling him to run away and come back with them; the boy did as directed, and delivered the stolen property, in the most unconcerned manner, to the policeman who had come to the spot at the cries of "thief." On being arrested, he asserted he had no knowledge of what had occurred, and remained utterly indifferent to the criminal charge brought against him. I found upon inquiry, that his paternal grandfather died paralytic, one of his maternal uncles was insane, and his father, a painter of talent, died of Bright's disease, superinduced by excessive drinking. This boy was seized, at the age of eleven, with fainting fits, and subsequently with attacks of *grand mal*, during which he would bite his tongue. His head is irregularly shaped and very small: he frequently complains of dizziness, and occasionally wets his bed at night, but usually remains most of the night awake, believing his room surrounded by people making a great noise, or opening the door to look in. He frequently crows like a rooster early in the morning, or at other times of the day. He also believes himself persecuted by his parents, and has threatened to kill his mother, telling her repeatedly that

he will do it at the first chance. He has become on some occasions violent, needing to be restrained; uses very foul language, is a liar, has often been drunk; his depraved conduct causes a great deal of anxiety to his family. After the fits, or the attacks of insanity, he goes to sleep for several hours, the approach of this period being always announced by dizziness and severe headache. He looked very pale, and complained of feeling unwell the night of his arrest, in the early part of which he had a fainting turn. His forehead, according to the mother's statement, was then covered over with *petechiæ*, and three days before, he had a severe falling fit, in the street, and had to be brought home by friends of the family. He acts unconsciously after the attacks, laughing in a silly manner at any remarks addressed to him. He has on several occasions gone away from home during his fits of insanity. A year ago, after a falling fit and repeated seizures of *petit mal*, he disappeared from home, and several days after, his mother heard of him through some friends, who found him in Red Bank, New Jersey, acting very strangely, and unable to give any explanation of his conduct. About two years before this occurrence, and under similar circumstances, he left home and remained absent for more than a month, his family being unable to discover his whereabouts. During this time he went to the west, and stopped at Chicago, but could not afterwards describe any of the places where he had been, nor was he, in short, conscious of what he did all that time. Neither has he preserved a better knowledge of what occurred on the night of his arrest, or of the circumstances leading to it, and, on account of the foregoing facts, he has been discharged from prison to be committed to a lunatic asylum.]

Let me now refer to cases, where the state of uncon-

sciousness existed, independent of any visible fit, and on which I desire chiefly to insist, to demonstrate their clinical significance and medico-legal bearings.

I have had a patient under my care since 1867, and observed him very closely, assisted in the beginning by my learned friend Dr. L. B. Edwards, of Richmond, Va. He is 35 years old, epileptic since puberty, and was at first subject to furious mania, lasting about three weeks after the fits of *grand mal*. His condition improved under treatment, and gradually the attacks changed into vertigo, often repeated, accompanied with religious monomania, and he refused to speak to anybody. After an absence of several months in Nova Scotia, he returned to New York, two years ago, considering himself cured, though acting very queerly at periodical times. No fits had occurred for sixteen months, a longer freedom than had ever been observed before. At this time he would lose, every three weeks, the memory of the most trivial circumstances, frequently inquiring for noises that he heard, or obstinately insisting upon going out to wander at a venture for hours, or to visit persons with whom he was not acquainted. On other occasions he would enter a shop and buy articles he did not want; he was once arrested for assaulting a clerk in a dry goods store, who refused to let him carry away some goods he had selected, unless they were paid for. He has in like manner, caused considerable annoyance to his brothers, in ordering things, and denying on their reception that he had bought them. He acts, throughout the paroxysms, in an apparently rational way, answers coherently, but at once forgets what he has said, and repeats the same word, or question addressed to him. He further displays a slight but evident quivering of the hand and of the facial muscles. This state is followed by several hours of profound

sleep, from which he wakes in complete oblivion of what he has done.

A young man, aged 19, with a paternal cousin epileptic, has suffered for six years from *grand mal*, after being sunstruck. For the last year, the fits occurred as a sort of vertigo, without other convulsions, beyond a slight quivering of the facial muscles, which came on generally in the morning; subsequently, instead of vertigo, he exhibited occasionally for hours, or a whole day, an utter unconsciousness of what he did. His mental power in the mean time was failing, and his memory had become very much enfeebled. The first instance of his unconscious state that attracted particular attention, was the following: he left his father's office, where he was employed, to call on a merchant, with whom his father traded extensively, and told him that it was of no use to look after the payment of some pending account, and asked in addition, for the closing prices of certain merchandise, that he could take them to his father before four o'clock that day. It is needless to remark the great surprise that this conduct caused his father, who looked upon it as an indication of sudden insanity. On another occasion, he started early in the morning for Mott Haven, where he stopped at his uncle's, who, struck by the strangeness of his acts and manner, brought him back to his father. He was then planning all sorts of mercantile projects. The day after these attacks, he was quite himself, but could not account for, or remember anything of what had occurred to him.

A gentleman, aged 42, had attacks of *grand mal* from the age of 12, until he was 22, but no fits have occurred since. He, however, has been subject for the last five years, to dizziness and headache, and must also have had some nocturnal attacks, from the statement of

a brother, who has sometimes heard him breathing very heavily, in the middle of the night. It was impossible to arouse him at once from such a condition. He is very passionate, and has had, at variable intervals, attacks, during which, for one or two days he believes himself another man, living in London, where he resided years ago, and acts in the most extravagant manner in regard to his affairs, and is very licentious. He becomes drowsy at the end of these attacks, and after sleeping for twelve or fourteen hours, awakes in a state of confusion, utterly unconscious of his previous actions and conduct.

A young man, about 20 years of age, brought from the Tombs to the City Asylum, was not able to furnish any account of himself, until several hours after his admission. I then ascertained that he lived with his mother, in Hartford, and was subject to epileptic fits, that had always occurred during the night. He could not explain why he started from Hartford, nor what he did before taking the night steamer, where he had a fit early in the morning. He arrived at New York quite incoherent and stupid, and was taken in charge by the police. At the asylum, this patient had several attacks of cerebral epilepsy, when he would become very impulsive and dangerous. One morning, after getting up, he assaulted another patient, who addressed some remarks to him, and wounded him about the face, with a vase he threw at him. During the fits of cerebral epilepsy, which lasted two or three days, and were not constantly preceded by nocturnal attacks, he acted entirely automatically, without preserving afterward the least recollection of what he had done throughout this stage.

I may further relate another instance, where the true nature of the disease would have been very difficult or

impossible to recognize, without the previous knowledge of the epileptic affection, and which also illustrates the multiple transformations, capable of being exhibited by epilepsy.

A German woman became epileptic at the age of thirteen, when she began to menstruate. Her father had paralysis at the time of her birth, and died paralyzed. The fits of *grand mal* occurred in the beginning, every four weeks, about the menstrual period, and she was troubled with faintings the rest of the time. At the age of twenty-two, her mind became so much deranged that she was placed in a lunatic asylum, in Germany, where she remained for nearly two years, and was then discharged as recovered from her insanity. Three years elapsed thereafter, without fits of *grand mal*, but the fainting turns persisted with less frequency, until one morning, this woman awoke completely stupid, not answering any question, and in one word, incapable of any voluntary exertion. She had to be put in and taken out of bed, had also to be fed, and would soil herself with her urine and feces. She would remain in bed and go to sleep, in any position she might be placed, and when awake her eyes remained fixed, with pupils dilated, and had a glassy lifeless expression. While in this state no reflex excitations could be induced, and after continuing thus for four or five days, she would awake and appear natural, but had no appreciation whatever, of the attack. These peculiar paroxysms were repeated periodically, at intervals of three or four months, and then passed occasionally into attacks of mania, lasting one or two days, when she would sing, and become very boisterous and restless, and tear her clothing, though she had no fit either before or after the maniacal attacks. This was, most assuredly, a typical example of *folie circulaire*, and the

patient has been considerably improved by treatment, although the fits have not entirely disappeared.

The following are such very remarkable instances of the state of unconsciousness in question, narrated by Lasègue* during the recent discussion on the transformations of epilepsy, in the Medico-Psychological Society of Paris, that I feel bound to add them to those here cited. "A gentleman of distinguished appearance, chief officer of a railroad company, was arrested in a perfumery shop. He had bought different articles, and while the female clerk was packing them up, he put into his pockets various things which were lying on the counter. He went out without paying for them; the clerk followed him, and demanded their value, but he refused to pay, stating that he did not understand what was wanted of him. A *sergent de ville* interfered, the stolen articles were found, and the gentleman was arrested, and taken to a police station, and thence to the prison. There was something so unusual about this occurrence, that the chief officer of the prefecture suspected the prisoner was affected with mental alienation. I had to examine him, and deeply interested in the situation of a man, holding a rather high social position, who had stolen objects of an almost worthless value, and which were entirely useless to him, I instituted a strenuous investigation into his case, having the presentiment that he was an epileptic, but unable to discover any fit or vertigo. His intelligence was unimpaired, and the only thing I learned, was that for three or four years past his memory had been failing. 'Before,' said he, 'I could recollect the tariff with a surprising quickness; as soon as I was asked for any information I could furnish it immediately, without any hesitancy. To day, I am obliged to consult my

* *Annales Médico-Psychologiques 5ème Série. Tome IX. Janvier, 1873, pp. 151-153.*

tables; it is impossible for me to remember them.' This, however, helped me little; the information I gathered from his friends, throwing no better light on the case, I then questioned his office servant, who had been a long time in his service. He at once replied, that he had never noticed anything extraordinary with his chief. I kept on my questions, and disclosed at last, that one day as he was leaving the cabinet of his chief, and having already closed the door, he heard the falling of a heavy body, and on re-entering immediately, found his chief lying on the floor, and assisted him to get up, but that no similar occurrence had ever been repeated since. I then became satisfied that this man was an epileptic, and that his disease had passed unsuspected."

"Let me add another example," continued Lasègue. "A blacksmith was being helped by one of his assistants, in shoeing a horse. Suddenly, without provocation, he struck several blows at the head of his companion, who was holding the horse's foot, and fell furiously upon him. He was arrested, and in answer to the question, why he had struck the workman, replied, because he could not bear him, and wanted to get rid of him. He pretended that the renewed quarrels they had every day, caused him endless difficulties. Upon inquiry it was ascertained that there was not one word of truth in such a statement. I was directed to examine him, and being already struck with the rage with which the blows had been given, and with the fury he displayed, similar to that peculiar to epileptics, I undertook my researches, surmising the idea of epilepsy. I found nothing characteristic, and did not listen to the system of defence adopted by the prisoner. I had evidently to contend with an individual, who had acted under the influence of an irresistible impulse, which he

could not account for, and who on discussing the subject, invented a system to explain it. This man, confined in Mazas, did not exhibit the least disturbance during fifteen days. Suddenly, he was seized with the most violent delirium, his strength increased, he tore up the floor of his cell with his hands, and having detached the hard cement which unites the bricks forming the arched-roof of every story, he made an opening large enough to let himself through, and fell into the cell underneath the one he occupied. He threw himself on the prisoner confined therein, and struck him; a struggle took place, and the keepers had the greatest difficulty to restrain him. He continued for seven days thereafter in a state of constant delirium, the violence of which I could only compare to that of delirium tremens. This unquestionably was an epileptic attack."

During the same interesting discussion, which called forth the report of the two cases just cited, Berthier related in detail the history of the teacher Postula, whose case has deeply engaged the attention of the most prominent Parisian alienists, and who, besides his convulsive paroxysms, with singular mental disorders, and depraved instincts of sodomy, alternating with periods of apparent intellectual soundness, exhibited also fits of absence, during which he would become so much abstracted as to be entirely unconscious of the presence of bystanders. One day, while seized with these attacks, he wrote two very long and sensible pages, and afterwards interpolated therein, almost unconsciously, a long grammatical discussion.

I could multiply references to several other well authenticated cases, related by standard authorities on epilepsy, wherein the state of unconsciousness strikingly appears, although not specially pointed out, in the light here considered. I must not overlook, however,

the no less remarkable example, presented by Dr. Gray, during the trial of David Montgomery, to illustrate the important phenomenon in question. In this epileptic the state of unconsciousness was displayed for four days, during which period he met with a fracture of the arm. He never appeared afterward to be aware of the circumstances under which it happened, or of the remarks (apparently rational) he expressed about his injury, or of his conduct throughout this paroxysm of epileptic insanity.

The cases of intermittent epileptic insanity occurring without close proximity to any visible fit, are, indeed, frequently very perplexing. They correspond to the larvated or masked form of cerebral epilepsy, described by Morel, and to which his pupil, Dr. P. Leblois, has given the name of cerebral epilepsy. Morel deserves the credit of having collated the most important facts, which have contributed to elicit a correct knowledge of cerebral epilepsy. But, the first clear and striking passage relating to cerebral epilepsy, may be read in the well-known commentaries on insanity, written nearly half a century ago by George Man Burrows, and, which is yet, one of the most valued books on the causes, forms, symptoms, and treatment of insanity. When speaking of the complications of epilepsy with insanity, Burrows says:* “It appears as if the epileptic impulse, when not ending in convulsion, acts on the brain in a peculiar mode, and imparts to it that particular action denominated epileptic mania.” By substituting for the two last words, larvated or cerebral epilepsy, we may have the most concise and correct explanation which might perhaps be suggested of this condition.

Cerebral epilepsy implies an advanced stage of the epileptic malady, but it may be superinduced at any

* *Commentaries on Insanity*. London, 1828, p. 156.

time throughout its progress, and even while such progress has been effected in a sort of hidden or larvated manner. There is an example, reported by Desmaisons,* where the convulsive fits had ceased for nearly forty years, the man continuing to have periodically, every year during the spring, attacks of cerebral epilepsy, when he would become furious and excessively intemperate. In one of these attacks, and not having yet touched liquor, he killed his old mother without any motive whatever, just as she came into the place where he was. On seeing her, he suddenly seized a knife and stabbed her several times in the neck, then sat down on her body, and when his sister-in-law came to the spot, attracted by the cries of the victim, he renewed the stabs in the breast of the expiring old woman, and finished her.

The following are examples of cerebral epilepsy in no close connection with any fit of *grand mal* or *petit mal*, but obviously showing their epileptic nature.

A girl from Indiana, aged twenty-four, epileptic since the age of sixteen, had attacks of *grand mal*, preceded by maniacal excitement. She was an old hospital patient, and her attacks had insensibly been transformed into fits of mania, lasting several hours, during which she would exhibit the most determined suicidal tendencies. She displayed these fits of transitory mania for about a year, when the spasmodic attacks recurred irregularly, and she became demented. This woman was very quarrelsome and had to be isolated and closely watched during the fits of mania.

A young man, aged twenty-seven, had fits of *grand mal* preceded by an aura, starting from his bladder. The attacks were sometimes averted by urinating, on the first intimations of the aura. He had also congeni-

* *Archives Cliniques des Maladies Mentales et Nerveuses*. Paris, 1861. Tome I. p. 306.

tal deformity of the left limbs, and was a reckless masturbator. While in the hospital he suffered from few fits, but was subject to periodical attacks of insanity, when he would become very abusive and uncontrollable, wandering all the time around the asylum grounds. He would also pick up and keep his pockets filled with every little object he might find in his wanderings. He drowned himself in the river during one of these fits of insanity, and left a letter with another patient, disposing of the few things he possessed at the hospital, and full of the most mad expressions against his mother.

A man, aged thirty-six, was in his infancy seized with fits of *grand mal*, which reappeared during puberty, and, after becoming very frequent at the age of twenty-five, they ceased, again to be replaced by paroxysms of mania, which never lasted longer than one day, but were repeated three or four times in the year. In these paroxysms, which usually occurred in the morning, he was troubled with hallucinations of hearing: talked in a boisterous manner, constantly asked "where, where, tell me where." He would not reply to questions, and became very dangerous. The fits of insanity yielded to treatment with ergotine, conium, and bromide of potassium, but the attacks of *grand mal* have recurred occasionally, leaving him very irritable, lethargic and yawning for several hours.

A man, aged thirty-two, has been epileptic since the age of twelve. He commenced with fits of *petit mal*; while in conversation in his room he would stop suddenly, and hide himself in a corner, or turn the key of the door without opening it, or when walking in the street, he would start and run for a short distance, then halt for an instant confused, after which he would not lose the thread of his conversation, though remaining

wholly unconscious of what he had done. Subsequently these attacks were replaced by *grand mal*, frequently repeated, attended with melancholia for a few days, and during which the least remark, or even the mentioning of his name to call him, would throw him into a fit of passion. Lastly, the attacks of *grand mal* disappeared, but for five or six days he would display periodical fits of religious monomania, when he would keep writing on religious subjects, or loudly reading the Bible, and preserved the most irritable and dangerous disposition during these seizures. This patient used to keep a diary of his life, which he concealed from everybody's sight with great care, and in which could be seen the description of his hallucinations of sight and hearing. I will present hereafter one of the letters he wrote to his brother at the close of one of his attacks, which vividly shows his hallucinations of sight.

A lady sent to me by my friend Prof. Chas. Budd, had unsuspected nocturnal attacks, probably commencing at the age of puberty, at which time she also suffered from fainting spells. She married, and in her wedding trip, was seized with the first diurnal fit of *grand mal*, while in the top of the tower at Mount Auburn Cemetery, in Boston. When she first consulted me, three years ago, she had slight vertigo through the day, preceded by a vision of a sudden flash of fire, like lightning. Her memory was rapidly failing, and she complained of not being herself, "feeling herself insane, without a will." She had also been overcome by blind impulses to kill her new born daughter, and being unable to resist them, her mother had to take the infant away from her. Let me incidentally notice, that this child soon began to exhibit signs of paralysis, and is at present completely paraplegic, having not yet been able to articulate a word. The mother im-

proved very much under treatment, the *petit mal* stopped, and she gave birth to a second child about a year ago. Since then, the fits of *grand mal* recurred with great frequency, but were soon replaced by attacks of cerebral epilepsy, which, the longer their intervening period, the more severe they have been. A few weeks ago this lady went to the room of her paralyzed daughter and ordered her nurse to go away. As soon as she was left alone, she passed the fingers of her right hand into the child's throat, and would have suffocated her, if the nurse, who was apprehensive of some mischief on the part of the lady, had not run into the room as she heard the child screaming. The mother pretended that she was transmitting her electricity into the child's throat to cure her palsy, and make her speak, and became very mad and furious when removed from her daughter's room. Two hours after she went to sleep, and did not know on waking what she had done. She had remained free from *grand mal* for several weeks.

I have selected these examples because they evince the true epileptic source, and insane nature of the transitory attack of cerebral epilepsy, which some French alienists regard as a spurious form of insanity. There are cases, however, where we have to depend on the antecedents, to arrive at their precise diagnosis. Why the attacks of cerebral epilepsy should be more prolonged than the other convulsive paroxysms, is a question that naturally suggests itself. The reason seems to me quite obvious. The reflex faculty of the spinal cord can not be called several successive times into action without exhausting itself; not so with the cerebral activity, which is continuous in its operation, and capable therefore of being disordered by the epileptic shock, in the same periodical, but more prolonged, though still

transient manner. I have previously asserted, that the closer we investigate the history of the so-called transitory mania, the more restricted becomes the number of cases which do not originate from epilepsy. My views reach still further: the most typical instances I have met with of instinctive monomania, (*manie sans delire*), as described by Pinel, Esquirol, Georget, Conolly, Prichard, and other alienists, have been among epileptics, on which account I lean strongly to the belief expressed by Berthier, that we are not distant from the day, when we shall regard instinctive monomania as a form of epilepsy, acknowledging its source in a lesion of the sympathetic.

I will not trespass on the time of the Association by demonstrating the frequency of religious monomania, and erotomania among epileptics, which I have pointed out in my clinical researches. These special forms of monomania, or rather the exaggerated religious feelings of epileptics, in the early stages of their disease, also attracted particular attention from Morel,* although it has been stated very recently, by James C. Howden,† that, “to the best of his knowledge, this feature in the mental condition of epileptics, has not attracted that attention to which its frequency entitles it.”

Regarding the salacity of epileptics I wish, however, to remark, that according to my observation, onanism has been in almost every case one of the earliest symptoms of the disease, instead of its original cause as is usually believed; its indulgence has, of course, aggravated the fits, and when a neurotic hereditary tendency has existed, onanism has often preceded the onset of epilepsy, particularly among adolescents or children. Neither will I enter into details about the remittent

* *Traité des Maladies Mentales*. Paris, 1860, p. 701.

† *Journal of Mental Science*, No. LXXXIV., January, 1873, p. 482.

and continuous forms of epileptic insanity, which are both attended with dementia, imbecility, or a range of symptoms displaying a great resemblance to those of general paralysis. These cases are not embarrassing in their medico-legal aspects, and they swell in large proportion the incurable, or hopeless class of lunatics, which contributes in no little degree to the overcrowding of our asylums. Let me, however, notice the traits which distinguish the ordinary case of paresis, from that of epileptic paresis. The difference has been established in such a brief, truthful, and categorical manner by Delasiauve, that I will borrow it here.

"The epileptic parietic seldom exhibits the moral inconsistency and vague ambitious delirium, so frequently displayed by ordinary parietics. Indeed, he does not let his faculties ramble, his judgment is slow and confused, his memory weak and obscure, the expression of his ideas dull and laborious, like the articulation of his speech; but, nevertheless, preserving throughout, sufficient conception to accomplish the ordinary acts of his life, and being not insane, in the proper acceptation of this word. What prevails with him, is, I repeat it, the inability to act; an intellectual confusion rather than the incoherence or rambling of thoughts. No matter how deep be the deterioration, the cases of general paresis, due to epilepsy, display always such an identical physiognomy, that it is impossible to mistake them for any of those acknowledging some other source."*

The distinction between the intermittent form of epileptic insanity, unaccompanied by any visible fit, and other varieties of periodical mania, is a subject of primary clinical and legal importance. The discrimination is rendered easy from the beginning, when a reliable account of the patient's antecedents accompanies the history of his case. The demonstrations of parents stained with insanity, epilepsy, or any other constitutional nervous disease, an extreme susceptibility to anger, or impulsive acts, with strange peculiarities of

* *Journal de Médecine Mentale*, Tome I. Paris, 1861., p. 271.

character, moral depravity, and a more or less dwarfed condition of the intellectual faculties, in addition to the onset of fits during infancy, or adolescence, and subsequent vertigo or fainting spells, or instantaneous absence and giddiness, are elements of diagnosis. These when clustered around a case, evince the true epileptic nature of any transitory, instinctive, or mental disorder that might have recurred always identically, or with such a complete resemblance to the preceding paroxysm, as we notice but exceptionally, with any other form of mania. But we are often deprived of all these guides to our diagnosis, and left to judge of the attack by phenomena, which still bear an unmistakable stamp, although their significance might perplex an unexperienced physician.

I fully agree with Falret, that "whenever we meet with isolated acts of violence, outrages to person, homicide, suicide, arson, which nothing seems to have instigated, and when upon attentive examination and thorough inquiry, we find a loss of memory after the perpetration of the act, with a periodicity in the recurrence of the same act, and a brief duration, we may diagnose larvated epilepsy."* Not only do the attacks of cerebral epilepsy recur under the paroxysmal form peculiar to every manifestation of the disease, with all attributes of real insanity, but when they are displayed from the beginning, as in cases of traumatic injury to the head, syphilis, etc., they ordinarily repeat at comparatively shorter intervals than under other circumstances. The manifestations of epileptic insanity are never solitary; but they involve a repetition of fits, of mental or physical character: consequently, such insanity implies ordinarily, an advanced, but not necessarily ultimate, stage of the epileptic malady, and hence the

* *Annales Médico-Psychologiques 5ème série*. Tome IX. Jan. 1873, p. 162.

possibility of its relief or cure. We rarely observe epileptic insanity before puberty; for idiocy accompanies congenital epilepsy, and imbecility, the epilepsy which develops itself in childhood; the sudden impulsive acts to which epileptic-imbeciles are liable, render them one of the most dangerous class of patients in our asylums.

There is a manifest relation between the intensity and length of epileptic insanity, and the degree of impediment to the cerebral circulation, which may ultimately lead to meningitis. Giddiness, with perspiration of the head, sometimes very profuse, and also epistaxis, are symptoms observed during, or immediately after the paroxysm. Nothing betrays the congestive state of the brain more than the bloated and livid appearance of the face, the injection of the conjunctivæ with a thick white discharge, collected in the angles of the eyelids, and the lost, heavy look of the patient. If we examine the pupils, during the exacerbations of the paroxysm, when the patient becomes boisterous and violent, we will notice a rhythmical dilatation and contraction, entirely alike to that which follows the fits of *petit mal*, or *grand mal*, and which I have seen, in the latter instance, to persist for over one minute. The slowness of the respiratory activity, with marked loss of its normal relation to the pulse, is also a phenomenon I have detected in such a constant manner as to convince me of its being, as I have shown, an important peculiar symptom of epilepsy.* There is always at the close of the fit of epileptic insanity, a period of sleep which establishes the transition to a sound condition of mind. This sleep may be prolonged several hours, accompanied by a heavy breathing or snoring, which makes it resemble very much the sleep of drunkenness, a mistake strongly countenanced by the quick recovery

* On Epilepsy, Anatomo-Pathological and Clinical Notes. N. Y. 1870. pp. 279, *et seq.*

of the patient. I am not aware of any stress being laid on the medico-legal value of this symptom, which we find particularly noticed in many of the cases recorded by the authorities on epilepsy, and in those I have already narrated.

Another peculiarity, commonly conspicuous in epileptic insanity, is the echo sign or repetition by the patient of the same phrase present in his mind, or of the words addressed to him. This echo sign was estimated by Romberg, generally as an indication of cerebral softening; but, in this instance, I consider it mainly the result of a perverted will. I see that it has been distinctly cited in some cases, reported by different authors, although no precise reference is made to it in most of the others. The phenomenon renders itself very striking in the writings of the epileptic insane, as evinced by the following examples.

Here is the letter of the epileptic with religious monomania, to whose case I have previously alluded.

MARCH 16th, 1868.

My Dear Brother:—Your letter of the 12th came safely to hand through the guidance and directing hand of our heavenly father. Thanks and blessings and honor be unto his holy name, for ever unto his holy name for ever. It was very welcomed and I was very glad to hear from you and all my friends again. See see how good Jesus is to me, how good Jesus is to me who never did deserve any mercy. I hope that the lines I wrote will do you a great deal of good, and that that it will be the means of saving them all. I hope that it will awaken all your luke warm profession and stirr you up, and it will awake your lukewarm and awake you out of your sleep, and show you your lost and ruined condition, and make you repent and believe on the Lord Jesus Christ, for if you do not you do not you will be damned.

I have been blessed a great deal, and last night I received a glorious blessing from God. God is so very good very good to me a poor worm of the dust and Jesus my love is so sweet, so precious into my soul, and I do love Jesus Jesus. I can not love him

enough. While I am writing he is smiling upon me, me and blessing me so sweetly, his blessed presence is so sweet. James you must draw nearer to God. Satan is trying his best to destroy you, but I have prayed the Lord to bless and make you entirely his. Watch and search the Scriptures. Woe, woe be that man that lives in his sins, and woe, woe, woe be to him that teaches false false doctrines, that says you can not live without sinning, if it were better for him than he had never born, for God God says we shall and must live without sinning, What say you, what say you. I say yes, yes with all my heart, glory be to God. Ask and believe, and you shall receive. I must now close. Let all, let all read this whoever will. Give my love to all. Accept my love and may God bless you all and save you all for Christ's sake in the name of our blessed Lord Jesus Christ, is the prayer of an humble follower of and brother in Christ.— * * * * P. S. write soon soon.

The following lines were left at my office by a lady after she had had a nocturnal attack, and while laboring under the mental consequences of it.

"Dear Doctor

I am very sorry I could not find at your office. The seton hurts me awfully. I am getting quite getting quite well now of my head ache. I shall call on you at 5. p m. Yours respectfully."

This other letter, which is a very typical one, was written by a patient of Dr. Gray, who has kindly allowed me to copy it from the asylum records, where other similar ones may be seen. The patient was subject to periodical attacks of epileptic insanity, attended with epistaxis, and was demented; his case was one of remittent epileptic insanity. The letter is very badly spelled, and reads thus:—

"Harvey Morgan Catharine Morgane yo can write to me as yo want to and to the girls for i want to come home now rite awa for i am we wl and fell good i have had no fit for a month for a month for i have been well and you can come after as quick as yo can for i want come home as soon as i can so com as quick as you can use taugusta morgan almeda morgan mother morgan and my

time is out so pap yo must come as you want to for a month i have not ben dockerd eny so i am well so for a mont i have no fit so yo can come as yo want to for i am redy to come so it is the 20 august and tel ma that i want to see her as yo can come and tell the tilt arger that i am glad that i am come home i fell very well and that i want to see them all veary well so come as quick as you can for i am redy as quick as you can can get here with awe to morow father i want to see you as quick as yo get here for i am well for the boss of the house has not been to home for a month so you can come as quick as you can rite rite away and bee here the last of the month and tell ma that i wa to see her so papa you can come rite away as yo get this leter then make a start for all things is rite as quick as you can for i am redy to come home rite away sob be rite along to morto for i am redy to come home rite away as quick as you can come here for the docter want to see yo here wen yo get here so come as quick as yo can rite awell away so i will rite rite away for thal say i am well so good by come as quick as yo can and i am redy to come rite away to doct says that i am well so come rite away for i have been left curde for a quite spell so i am redy to come home as quick as you get here so come as quick as you can so rite away tell them all that i want to see them all as quick as i can get at home so i will come as quick as i can get home i hope that they all are well for i want to see them all so tell ma that i am glad that things is all write so bee rite along as quick as yo can that will be to-morrow i fell well so come as quick as you can come for i am redy to come home rite away to day so come on the 23 of this month and frite along as quick as yo can come for i am redy to come rite away tell ma that i want to see her as quick as i can so pa yo can come as quick as you can for i am redy to home as quick as yo can get here and bee redy to come as quick as yo can for i am redy to come rite away for i am well so brite along as quick as you can for the doctor say that i am well so come as quick as you can for i am redy to come home rite away come as yo can for think that they want ther pay so rite along as quick as yo can now for we are redy rite away to come home bee rite along as quick as yo can for i am redy to come home as quick as yo can get here so bee rite along to-morrow for i am redy to come home rite along so bee here as quick as you can for to morrow as soon as i can bee rite along as soon as you can for now i am redy yess to see ma now pa come as you can as yo can so tell the tittles girls that for long i will bee at home for i am redy to come rite away so tell pa the quick he comes to bee rite

along to be rite along within a few days rite along so come as quick as yo can to mor for there are redy as quick as yo get here so bee along as quick as yo can rite along for i am redy write along quick the better for i am redy to come home as quick as yo get here so bee rite along the are redy and they are all gone so bee rite along as quick as yo can so be yo here as quick as the better get home rite along that is so."

The last part of this letter shows the echo sign more and more prominently, as the patient's mind became fatigued; the same idea, expressive of his desire of leaving the asylum, kept as it were, rebounding all the time in a brain without sufficient will to take wing and outleap to other conceptions. I would not exaggerate the diagnostic value of this sort of writing, since the repetition of the same sentence is also observed in other forms of insanity, not associated with epilepsy, although certainly not carried to such an excessive degree. The phenomenon, however, seems to have attracted no attention, and I merely point it out, on account of the assistance it may render, to throw light on medico-legal cases.*

It is not through oversight that I have passed thus far, without directing attention to the hallucinations and delusions which are so constantly associated with epileptic insanity, and which I have not forgotten to set forth in the examples here narrated. The statistics of the 267 cases of manifest epileptic insanity, on which the conclusions I have put forward are based, show that morbid sensorial phenomena of various kinds have existed in 83 per cent. of the cases. Hallucinations of

* Dr. Clement A. Walker, Superintendent of the Lunatic Hospital, Boston, Mass., who has paid particular attention to the subject of epileptic insanity, told me, after the reading of this paper, that he has been equally struck by this peculiarity in the writings of the epileptic insane. He kindly promised to favor me with the copy of a letter from an epileptic girl he recently examined, which illustrates remarkably the echo sign. I greatly regret not to have received it in time for its insertion here.

hearing were the most prevalent, being recorded in 62 per cent. of the cases; of sight in 53 per cent.; of hearing and sight in 42 per cent., and of smell in 6 per cent. Finally, about 30 per cent. of the cases displayed disturbance of general sensibility, anaesthesia, hyperaesthesia, numbness, etc., etc. If we take into consideration the frequency of these false sensations in epileptic insanity, it will not be difficult to realize the manner in which its victims are fascinated by the feelings they experience, and which ordinarily assume the most frightful or deceitful character. And, it is not mainly the hallucinations of hearing and sight which so terribly overwhelm the epileptic; they also frequently suffer an unmitigated distress from the condition of their general sensibility. One of my patients begged to be relieved from his feelings, even if his fits were not cured; he remarked that his trouble was not in his head, but all over his skin; he could not explain how or what he felt. The only way in which he could overcome this terrible irritation, was by striking with his fists repeated blows against the walls of his room, until he bruised his hands and wore his strength out. In one of these attacks, which looked so much like a paroxysm of the instinctive madness of Pinel and Esquirol, he smashed to pieces the pannel of a door, and became so uncontrollable that he had to be restrained. I need not recall the positive terms with which Brierre de Boismont, whose competency on the subject far exceeds that of any other author, disapproves of the manner in which those who have discussed the legal responsibility of epileptics, have completely thrown aside the relations between hallucinations and epilepsy, in the epileptic shock which only affects the will. He reports several observations in support of the frequency of hallucinations with epilepsy, and believes it probable, that many

crimes committed by these unfortunate beings, and for which some have been severely punished, were but the result of hallucinations of hearing and of sight. Did time permit, it would be easy to accumulate a large number of examples, under my own observation, which in addition to those of Brierre de Boismont, and other alienists, establish the fact very clearly, that the morbid sensorial phenomena just considered, more than any other, are the cause of the impulsive and instantaneous violence so peculiar to epileptics. Wherever we have data for comparison, we shall see that the hallucinations of hearing are the most frequent, as is shown by the statistics of my cases. Morel has, with great propriety, insisted on the character of these hallucinations of hearing, and the piercing noises usually heard by epileptics, and which differ entirely from the noises complained of by those laboring under the delirium of persecution. There is, as Morel says, something very special in the phenomenon which could not be mistaken by an attentive observer, and which has always led the eminent alienist, just named, to the establishment of a definite diagnosis.

It would serve little purpose to speculate upon the facts I have so hastily gone over, while seeking to present in these faithful outlines, a general sketch, and not an exhaustive description of epileptic insanity. I have avoided making any reference to the psychical phenomena, which like precursory clouds or claps of thunder of a threatening storm, anticipate the outbreak of an epileptic fit, under the form of the intellectual aura, of which Falret has given the most faithful and interesting description. Nor have I alluded to the special moral and intellectual changes which characterize epilepsy, and which may be superinduced from its very outset, after the first paroxysm, effacing, as Maudsley says,

the moral sense as it sometimes effaces the memory. Let me simply repeat, that such deep moral changes and depravity, are more apt to occur, as I have often seen, from the very inception of the attacks, in those cases where epilepsy is induced by a traumatic injury to the skull,—a fact worthy of great medico-legal account. The appreciation of such morbid dispositions is beset with difficulties, and usually received with strong prejudices in Courts of Justice. Such intellectual changes, though not constituting a state of insanity, must place the epileptic, as Baillarger justly declares, beyond the common rule, and extenuate at least his legal responsibility.

I pass now to the medico-legal bearings of epileptic insanity, but will not dwell long on the subject, for it is not necessary for me to insist on the legal points, raised on such examples as I have mentioned, since they are so clear, that, as alienists, we can not fail to appreciate them at once. My closing remarks will be mainly directed to the state of unconsciousness of epileptic insanity, and the irresponsibility for criminal acts that it must confer. My idea of responsibility is clearly defined in these lucid conclusions of Bucknill. *"Responsibility depends upon power, not upon knowledge, still less upon feeling. A man is responsible to do that which he can do, not that which he feels or knows it right to do. If a man is reduced under thralldom to passion, by disease of the brain, he loses moral freedom and responsibility, although his knowledge of right and wrong may remain intact."** Having arrived at this conviction in reference to responsibility, and bearing in mind the reflex nature of the physical and mental phenomena connected with epilepsy, and our inability to

* *Unsoundness of Mind in relation to Criminal Acts*, second edit. London, 1857, p. 59.

avoid the effects of reflex actions, it follows, as a matter of course, that *I should regard epileptics irresponsible for any criminal act they might commit under the influence of a paroxysm.** Their punishment may be legitimate, according to statutory laws, though nothing else but inhuman, since it deems a man accountable for being visited with the most dreadful disease, the consequences of which he can not avoid. This explanation suffices also to appreciate the responsibility of those epileptics, who appear to preserve the knowledge of right and wrong, and who, like many other lunatics, perpetrate their criminal deeds or utterances with evident premeditation, or thought of consequences. We know too practically, that the power of systematic design and ingenuity of execution, in no manner disproves insanity; consequently, I shall not waste valuable time repeating what we all have learned from the very first moment we commenced our clinical experience with the insane. Silence on this well settled principle of psychological medicine might, perhaps, have been regarded as countenancing the contrary doctrines on the subject, which have found their way in Courts of Justice, with no less discredit to science, than injustice to more than one lunatic, whose punishment has been secured on the acknowledgement of such false principles, though agreeable to the common sense, that has so much to say

* I have frequently read, and with no less frequency it has been stated by some medical experts in criminal trials, that epileptics are capable of committing this or that other overt act during a convulsive paroxysm, which is wholly incorrect. During a convulsive paroxysm the epileptic remains unconscious and insensible, with the body or limbs more or less thrown into convulsions, and therefore he can not perpetrate any act of violence. It is during fits of *petit mal*, or of cerebral epilepsy, that epileptics may keep on talking or acting in a coherent though unconscious manner, and under such circumstances, in cases of *petit mal*, the muscular spasms are so light and of such a limited extent that they do not usually attract attention. The falling fit and furious action are incompatible with each other; the latter exists either before or after, but never while the convulsive manifestations are lasting.

about medical science, or to the demands of public clamor. A reviewer in the *Journal of Mental Science* has lately written in reference to the legislation for habitual drunkards; that it is a miserable misfortune for a great question when it falls into incompetent hands; and the remark applies no less forcibly to the subject of criminal insanity, and those learned experts called to enlighten our courts and juries thereon, without ever having had any practical experience in insanity, on which they give nevertheless, with great self-assurance, the most ridiculous or sensational evidence.

Regarding the responsibility of the epileptic insane, what I wish mainly to point out, is, that the majority of epileptics have no knowledge, or at least a very imperfect idea, of their misdeeds; such a state of unconsciousness being the one I insist upon as the characteristic of epileptic insanity. The fundamental error in judging of questions relating to criminal acts, perpetrated during epilepsy or insanity, generally consists in measuring the nature of the morbid feelings and actions of such lunatics, by the standard of our sound feelings. Unconscious cerebration exhibits itself in a high degree in epilepsy, but it is not exceptional to it, for we observe it more or less in all forms of insanity, and strikingly in somnambulism. The recognition of our feelings and actions, is the essential requisite of consciousness; and, that lunatics are divested, even in the apparently rational and quiet periods of their madness, of a proper recognition of their outward relations and feelings is an obvious fact. A very cogent proof of this unconscious cerebration of the insane, is further evinced in the fact so properly remarked by Bucknill, that a large number of individuals having a tendency to become insane, have the power to resist the same, if they can only be brought to exercise it; which means

simply, if they habituate their will to reflect, and have the proper appreciation of their actions, or, in short, if they act consciously.

The examples I have selected render plain the state of unconsciousness, during fits of epileptic insanity, and not only place its existence beyond question, but furnish the explanation of the singular and sudden oblivion, so peculiar to epileptics after the commission of their criminal acts. In referring to the state of unconsciousness not immediately connected with a fit, during which Fyler, Bethel, and Winnemore committed homicide, Dr. Ray says that it is supported only by their own statements, which under the circumstances, are not to be implicitly received. The description I have set forth, of this phase of the epileptic malady demonstrates that there was nothing improbable in the declaration of these three epileptics. Another interesting point, worthy of special reference is, that none of the patients who have come under my observation, were aware of their ever having acted in an unconscious manner, the occurrence of their previous attacks of unconsciousness having been reported to me by their relatives or friends. The young man who took a buggy he met in the street, and rode, over two or three hours during one of his fits of epileptic insanity, and who in a subsequent one embarked to go to England, was never aware of such facts; nor could any of the other patients give any account of their similar trances of unconsciousness. The case of Winnemore is, therefore, curious in this particular regard, as he knew having once rowed about in a boat for several hours, without being aware of the fact, having been told of it, it is true, by those who saw him.

A man is confined in the New York City Prison, for having killed the alleged seducer of his wife. The

parents of this criminal are deeply tainted with insanity; his father and a younger brother are epileptics, and six other paternal uncles and cousins, are epileptic or insane. This man has gone through a most adventurous life and travels. He represents himself as having fits of *grand mal*, and attacks that he calls "nervous paralysis," which are probably *petit mal*. He also shot his father-in-law after a quarrel, and after he had been, as he asserts, suffering from *grand mal*. He has constitutional syphilis, and phthisis, and besides a slight twitching of the facial muscles. I had about an hour's conversation with this prisoner, whose history points so strongly to epilepsy, and from the open talk he had with me and one of the lawyers engaged for his defence, who accompanied me, I was led to believe, that he had no real appreciation of his crime or remorse with regard to it. He related among his adventures that, in 1857, while employed as clerk, in a mercantile house in New York, he was walking along the dock, when the steamer "Jas. Adger" was about starting for Charleston. He jumped aboard of her, and found himself afterwards in Charleston, without money of any account, baggage, or any friend. He had to pledge his jewels to secure passage in a schooner coming to New York, where he arrived in a stupid condition which lasted several days. He has never been able to give the reasons which prompted him to the execution of such an unnatural act, and to abandon his employment. He recollects, however, the event of such a strange journey, and if the facts in relation to his alleged fits are confirmed, it is fair to presume, that his trip to Charleston might have been undertaken, while he was laboring under cerebral epilepsy. If this is demonstrated, his case will be the first I know of, where an epileptic has preserved, without being told of it, a distinct recollection of such paroxysms of unconsciousness.

I have endeavored to establish the principal phenomena which may furnish the safest criteria to recognize epileptic insanity in its various forms, and it is useless to assert, that the distinct demonstration of the existence of such phenomena is indispensable before we can fully appreciate and decide upon the nature of any criminal act, perpetrated during an alleged condition of epilepsy. Your attention has been engaged longer than I calculated, and I must bring these remarks to an end. We learn by the conscientious pursuit of our profession, that to advance, we must be prepared to modify or abandon our conclusions, with the elucidation of their unsoundness or shortcomings. I have taken particular care not to engage in idle speculations, and to avoid rendering more obscure the questions of so great moment, to the welfare of epileptics, involved in this subject. I am fully aware that I have not grasped it in all its breadth, but I have given you the plain narration of cases of epileptic insanity, like many of those that assuredly fall under your daily observation. These have been collected and submitted to your attention, not to suggest any new ideas about them, but simply to aid us to correct our conclusions according to the more enlightened and judicious views of the principles they illustrate.

